

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch

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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-011992**Date Inspected:** 12-Feb-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 645**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1845**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Li Yang**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG**Summary of Items Observed:**

On this day CALTRANS OSM Quality Assurance Inspector (QA) Joe Alaniz was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island in Shanghai, China. QA observed and/or found the following:

OBG Assembly Yard

6CW

Shield Metal Arc Welding (SMAW) welding was performed on weld joint 012 located at OBW6F on counter weight side of segment. Welder is identified as Mr. Jian Jinyong (066301). ZPMC QC is identified as Li Yang. The welding variables monitored and recorded by the QC appeared to comply with WPS-B-P-2214-Tc-U4b.

Flux Core Arc Welding (FCAW) repair welding was performed on weld joints 24 and 25 located at SP085-001 on cross beam side of segment. Welder is identified as Mr. Zhang Hanming (220066). ZPMC QC is identified as Li Yang. The welding variables monitored and recorded by the QC appeared to comply with WPS-345-FCAW-2G (2F)-Repair-1 and WR10633 repair procedure.

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## WELDING INSPECTION REPORT

( Continued Page 2 of 4 )

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6BE

Shield Metal Arc Welding (SMAW) repair welding was performed on weld joint 004 located at CA026 on bike path side of segment. Welder is identified as Mr. Luo Xuanping (067610). ZPMC QC is identified as Li Yang. The welding variables monitored and recorded by the QC appeared to comply with WPS-345-FCAW-2G (2F)-FCM-Repair-1 and CWR1092 repair procedure.

Y Location of repair by above noted welder (067610) is located at 6450mm.

Shield Metal Arc Welding (SMAW) repair welding was performed on weld joint 006 located at CA028 on bike path side of segment. Welder is identified as Mr. Zhang Xiangrong (066763). ZPMC QC is identified as Li Yang. The welding variables monitored and recorded by the QC appeared to comply with WPS-345-FCAW-2G (2F)-FCM-Repair-1 and CWR1137 R2 repair procedure.

Y Location of repair by above noted welder (066763) is located at 10485~10495mm.

7AW

Flux Core Arc Welding (FCAW) repair welding was performed on weld joints 13 and 14 located at SP437-001 on cross beam side of segment. Welder is identified as Mr. Zhang Hanming (220066). ZPMC QC is identified as Li Yang. The welding variables monitored and recorded by the QC appeared to comply with WPS-345-FCAW-2G (2F)-Repair-1 and WR10633 repair procedure.

Shield Metal Arc Welding (SMAW) welding was performed on weld joint 001 located at OBW7M on counter weight side of segment. Welder is identified as Mr. Li Zhengxu (066301). ZPMC QC is identified as Li Yang. The welding variables monitored and recorded by the QC appeared to comply with WPS-B-P-2214-Tc-U4b.

7CW

Flux Core Arc Welding (FCAW) repair welding was performed on weld joint 002 located at CA037 on counter weight side of segment. Welder is identified as Mr. Cao Xinglong (069683). ZPMC QC is identified as Li Yang. The welding variables monitored and recorded by the QC appeared to comply with WPS-B-P-2214-Tc-U4b-FCM-1.

Miscellaneous Work In Progress

QA Inspector observed ZPMC's personnel performing various job functions in the trial assembly yard. Locations and description of work are as followed:

5BW

1. Heat straightening was performed on weld joint SEG021A located on the cross beam side of segment between panel point 32 & 33 per HSR (B)-348.

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## WELDING INSPECTION REPORT

( Continued Page 3 of 4 )

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### NDT Observation

This QA Inspector observed ZPMC Magnetic Particle Testing (MT) Technician performed MT on various locations in the trial assembly yard. Locations are as followed:

#### 6BE

1. Excavations (UT reject) area on the bottom plate to side plate weld joint SEG028-006 located on the bike path side of segment. Y locations are as followed: 10485~10495mm and 10530mm~10715mm.

#### 6BE+6AE

2. Weld joints OBE6-002/003 and 004 deck plate weld splice.

#### 6BE+6CE

3. Weld joints OBE6A-002/003 and 004 deck plate weld splice.

This QA Inspector observed ABF Ultra Sonic Testing (UT) Technician performed UT on various locations in the trial assembly yard. Locations are as followed:

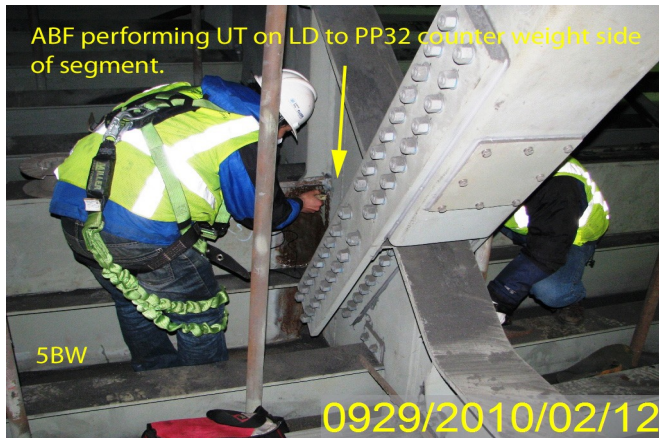
#### 5BW

1. Longitudinal Diaphragm web/flange to panel points 32 & 33 counter weight side of segment.

#### Note:

Due to Chinese holiday, work was limited in the OBG Trail Assembly Yard on today's work shift.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.



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## WELDING INSPECTION REPORT

( Continued Page 4 of 4 )

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### Summary of Conversations:

Only general conversation was held between QA and QC concerning this project.

### Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang (150-0042-2372), who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Alaniz,Joe	Quality Assurance Inspector
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<b>Reviewed By:</b>	Miller,Mark	QA Reviewer
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